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PARKING AND TRAFFIC CIRCULATION STUDY

OF THE CENTRAL BUSINESS DISTRICT

ROCKINGHAM, NORTH CAROLINA

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PARKING AND TRAFFIC CIRCULATION STUDY

OF THE CENTRAL BUSINESS DISTRICT

ROCKINGHAM, NORTH CAROLINA

PREPARED BY:
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LOANS

Three Sisters
KINNEY SHOES
Penneys
Roses

1

INTRODUCTION

This study on parking and traffic circulation is one of a continuing series of studies for Rockingham aimed at guiding city development. The City of Rockingham first contracted with the Division of Community Planning for technical planning assistance in 1960. Since that time nine studies have beem completed. Included among those studies completed is a Central Business District Study published in the spring of 1961. The primary purpose of this present study is to revaluate a portion of the 1961 study. The 1961 study was concerned with the total aspects of a Central Business District whereas this study is only concerned with parking and traffic circulation, and therefore only a small part of the 1961 study is reconstructed in this report. While the 1961 study was concerned with parking and traffic only in a secondary way, the study covered them sufficiently for comparison purposes.

A revaluation of the 1961 findings and recommendations on parking and traffic circulation is necessary due to several post 1961 occurrences. The primary occurrence was the Westside Urban Renewal Project which took in half of the Central Business District and rendered parts of the 1961 Central Business District Plan out-of-date. Other important factors and events that helped render the 1961 Central Business District Plan out-of-date were the Public Housing Project, the locational route of the proposed US 220 By-pass, the 1964 Thoroughfare Plan, and the construction of an urban shopping center on Broad Avenue between Rockingham and Hamlet.

The shopping center is included as one of the factors contributing to re-study of the 1961 findings because the shopping center's early successes apparently induced the neighboring Town of Hamlet to remove its parking meters, which in turn incited a number of Downtown Rockingham merchants to request the removal of Rockingham's on-street meters.

Therefore, the major objectives of this study are as follows:

1. To study and evaluate the effectiveness of the on-street and off-street parking meters.
2. To evaluate the City's progress toward the parking goal set for it in the 1961 Central Business District Study. The evaluation will utilize the 1961 study in a comparison of number and location of facilities and calculated parking needs.
3. To evaluate the effect the Westside Urban Renewal Project will have on parking and traffic circulation in the downtown.
4. To recommend a course of action for the City to take in constructing an effective parking program.

The primary means for gathering data for analysis was the conduction of several field surveys. The first survey was an inventory survey and the following factors were studied: location and number of on-street and off-street parking facilities, and building and land uses. The second survey was conducted with the objective of obtaining data on the parking characteristics and thus the effectiveness of the present parking program.

Too Many Cars, Too Few Spaces

By HUBERT BREEZE

The average shopper is a comfort-loving creature who doesn't want to strain his (or, more likely, her) feet and leg muscles.

You can't entice her to walk much farther than 223 feet from her car to the first store she visits. Seventy-seven percent of shoppers in towns under 25,000 population walk no more than one block before entering a store.

After she leaves the first store, however, she may walk all over town before returning to her vehicle.

It goes without saying that shoppers gripe about parking meters. But they may gripe even louder if there are no parking spaces available near the stores they want to visit.

These statistics make downtown merchants want to tear their hair in frustration.

They love the shoppers, naturally. But how to get them downtown, into a parking place with a minimum of trouble, and into the stores without too much walking are problems that they lie awake nights and ponder on.

Some of the problems and suggested solutions were presented to the Rockingham Planning Board, the City Council, and a few merchants Tuesday night. The statistics and suggestions were contained in a survey prepared by the Community Planning Division of the N.C. Dept. of Conservation and Development.

Downtown exists for the convenience of the shoppers. That is the primary assumption of the survey.

If merchants and shoppers had their wish, there would be plenty of storeside space for those who want to buy, for bosses and employees.

But there isn't. The town grew up in horse and buggy days. Narrow streets were wide enough then for the few vehicles in town and the horses were parked in livery stables. Now it seems that on busy days everybody has two cars, one of which he parks downtown and the other which he drives around looking for a parking place.

Cities have recently begun to plan for parking sufficient to take care of the new buildings built. But that is an all too recent development. Even now in Rockingham this is not being done, the survey showed.

Because of the city's growth there are some areas which are used very little by shoppers while others are saturated with traffic.

All these factors combine to frustrate both shoppers and merchants.

More specifically, Rockingham has a very high traffic volume in the prime area of its central business district. There is an average of 6,710 vehicles per day on Washington Street between Hancock and Lawrence St. and 11,550 per day on Hancock from Franklin St. south to the traffic light at US 74.

Not even Lumberton, which has a high concentration of shoppers in a small business district has this number of vehicles per day. Reason for the high volume is that Franklin, Washington, and Hancock streets are prime shopping territory. They are also a through street for U.S. Highway One. Tourist traffic accounts for 20 percent of Rockingham's town traffic.

This means that shoppers must fight through traffic while the through traffic bucks those parking or leaving the curb.

Because of that dislike for walking only 13 percent of the city's metered spaces are within the 223-foot distance from the prime businesses. Municipal metered lots are 500 or more feet from the main stores.

While the shopper finds it hard to procure a space close enough to meet his demand, many merchants and employees have it better.

Surveys show that employees expect to walk farther to work than the shopper has to go to buy.

But not in Rockingham. Private lots account for 486 spaces in downtown Rockingham and the majority of private spaces are more conveniently located than the public off-street lots.

Meter-feeders create another problem. The survey unearthed 31 cars parked on the street which they classed as meter-feeders. Of these 20 percent were on congested S. Lee Street.

Back in 1960 the Division of Community Planning made a Central Business District Study. It was decided then that 80 additional parking spaces should be created in Rockingham each year to keep pace with demand and to alleviate a shortage of more than 400 spaces. The total increase between 1960 and '65 has been 85 spaces, far short of the goal.

The survey recommended that the city's thoroughfare plan should be carried out. This will take through traffic off the main streets. It was also suggested that parking in the downtown area - close enough to the stores to be convenient - be acquired. One method of doing this, it was suggested, is to make private lots available for customer parking and to let clerks and employees walk farther to work.

The survey also suggested that the Urban Renewal project, if it is carried out, will have a big effect on parking in Rockingham. Strict regulation will ensure that there is adequate parking for all structures built in the area. The project will also call for widening and straightening of several streets in the 73-acre area.

It's all a mase of statistics which virtually concerns those who own property and make their living in downtown Rockingham.

To the customer - all he wants is a parking place right in front of the store where he (or she) desires to shop.

RICHMOND
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Downtown Rockingham Parking Ills Told

Meter-feeders, long-distance walks from public parking lots, and too few available desirable spaces hamper parking in Rockingham's main business district, it was stated last night to a group interested in downtown Rockingham.

Jim Shelton of the Community Planning Division of the Dept. of Conservation and Development, explained a parking and traffic circulation study he has made to members of the Rockingham City Council, Planning Board, and several merchants.

A preliminary draft of the study was available. It will be completed with maps and diagrams sometimes in the near future.

Shelton recommended solutions other than removal of parking meters to cure Rockingham's downtown parking ills.

Conclusions of his report, in part, are as follows:

"At the time of this writing merchants of the downtown stores are asking for the removal of the on-street parking meters. This request by the merchants has been precipitated to a large degree by the recent construction of a shopping center which offers acres of free parking and by the decision of nearby Hamlet to remove its parking meters. It is easy to understand how the proponents for the removal of the parking meters feel. Almost everyone has experienced the displeasure of finding a choice parking space and then discover that you do not have a nickel to put in the meter. However, what these merchants and shoppers do not realize is that parking meters have provided the best and cheapest means so far of assuring shoppers that a space will be available.

"The absence of meters makes the job of detecting overtime parkers infinitely more difficult and expensive.

Shelton's report continues, "The merchants are correct in their appraisal that something is wrong with the parking situation, however, it is not the on-street meters. The trouble lies in the poor downtown circulation, the inaccessible and distant parking lots: and indirectly the ills, which the merchants are trying to cure by removing the parking meters, lie in the shabby looks of many of the stores, even those outside the Urban Renewal Area and the lack of customer amenities such as a sidewalk canopy, rest areas, and a pleasant appearance of both the fronts and rears of stores."

Shelton split the central business district into three segments. Area One, the Urban Renewal area was deficient by 58 parking spaces. Area Two takes in all the stores north of Washington Street and east of Lee Street.

This area, Shelton said, has a surplus of 138 spaces. However, parking from Area 3 moves into Area Two meaning that there is no real surplus. Area Two takes in stores south of Washington St. and east of Lee Street. The survey showed a deficiency of 447 spaces in Area Three.

The survey, taken on a Friday in June 1965, at a peak shopping period, showed that the average on-street meter turnover is 47.8 minutes, despite the two-hour limit. There were 31 meter-feeders in the central business district, however, who used on-street spaces.

Useage of public metered lots, it was found, is not high. The lot near the municipal building had the highest useage. Those on South and North Lee and on North Hancock are not used extensively.

Shelton stated that thoroughfare planning for better flow of traffic will also help the Rockingham parking situation. As it is now there is considerable through traffic which competes for space with shoppers in the downtown area. He also stated that the Urban Renewal project, if it is completed, will also do much toward alleviating the situation.

Shelton suggested that new construction toward the east of Rockingham must include adequate parking spaces for customers.

Studies show that the average shopper will walk 233 feet to a store. Rockingham's public lots lie far outside this distance, Shelton said.

In a shopping center, however, the average shopper will walk farther than this, because all his destinations are in sight.

When asked for recommendations, Shelton said he did not have any specific easy solution.

He suggested that the cost of procuring adequate parking lots where they are convenient will be high. Another suggestion was that many of the private spaces now being used by merchants and employees be made available to the public and that employees park farther away from their work.

Lumberton, he said, has created a parking authority, with the power to issue bonds, condemn land, etc. This is one approach to the problem of doing something about parking, he stated.

In other cities the town council has taken over the parking matter, while in others merchant groups have done the job.

The parking and traffic circulation is one of nine done by the Dept. of Conservation and Development.

HUDSON'S
SHOE SHOP
HICKS
BAR & GRILL
BEER
PROVIDENT FINANCE

2

EXISTING CONDITIONS

The Existing Conditions section is primarily concerned with the location, number and usage of parking facilities. The Vehicular and Pedestrian traffic portions of the section were covered lightly because traffic was covered in great detail in two previous publications. In the sections on Location and Number of parking facilities and the section on Parking Usage, the Central Business District is divided into three areas. A more detailed analysis of the Central Business District parking needs is made possible by the Division. This is true because the Central Business District area is so large that three geographical areas emerge with each area exhibiting different looks and uses, and therefore different parking needs.

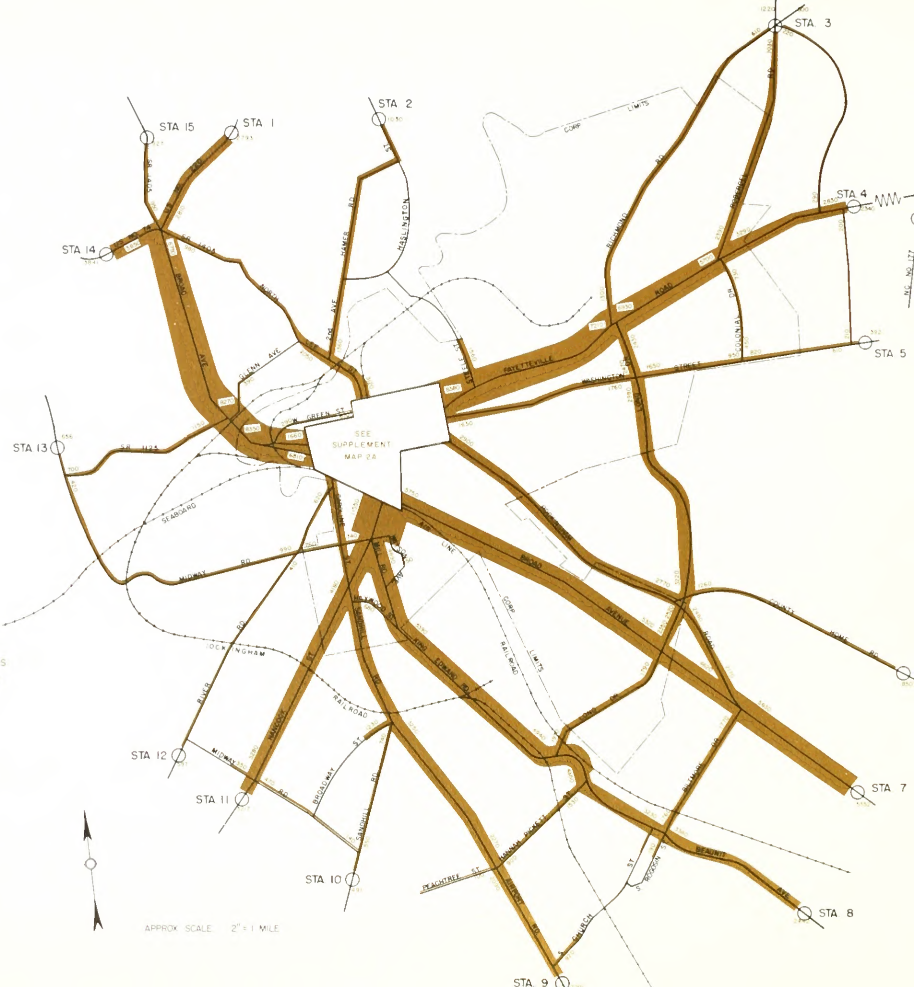
A. VEHICULAR TRAFFIC

Vehicular traffic patterns in Rockingham were studied in great detail by the North Carolina Highway Commission, Division of Advance Planning, in 1962. For the most part, the information in this section is taken from a publication of the Highway Commission entitled Origin and Destination Traffic Survey, Rockingham, North Carolina, based on that study of 1962. For those interested in more detailed information than is presented here, they are referred to that publication. Unfortunately, for this study, the report by the Highway Commission predates the construction of the shopping center on Broad Avenue between Rockingham and Hamlet. This new retail center is undoubtedly affecting the traffic volumes and patterns that existed before its construction.

ROCKINGHAM, N.C.

ORIGIN AND DESTINATION
TRAFFIC SURVEY
SHOWING

AVERAGE 24 HOUR TRAFFIC VOLUMES
ON HIGHWAYS AND PRINCIPAL STREETS



LEGEND:

CORPORATE LIMITS

HIGHWAYS AND STREETS

FIGURES DENOTE TRIPS PER DAY

TRAFFIC VOLUME SCALE

12000
9000
6000
3000

AVERAGE 24 HOUR WEEKDAY TRAFFIC OF O & D SURVEY PERIOD

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The study made by the Highway Commission was interested in the over-all vehicular movements in Rockingham and the surrounding areas, while this report is primarily concerned with the traffic volumes and circulation problems in the Central Business District. Therefore, only a portion of the Highway Commission's report is referred to herein.

Vehicular traffic is relatively heavy in the Central Business District of Rockingham. On Washington Street in the block between Hancock Street and Lawrence Street the average traffic volume was 6940 vehicles in an average 24 hour period, a very high volume to be in a Central Business District. In the next block east on Washington Street the average volume is 5890 vehicles for a 24 hour period. On Hancock Street in the block between Washington Street and Franklin Street, the average traffic volume was 4300 vehicles per day. On Hancock Street from Franklin Street on south where the street becomes two-way rather than one-way, as it is in the block between Washington and Franklin Streets, the average traffic volumes go as high as 11,550 vehicles and at the lowest point is still 6710 vehicles. Both Washington Street and Hancock Street serve dual purposes which accounts for the high traffic volumes recorded on those streets. First, they are the major shopping streets, and secondly, both streets serve as a through street for the US Highway 1 traffic.

The traffic volumes are also heavy on the streets coming into the downtown area from the south. The two principal streets, Broad Avenue and Beaunit Avenue, indicate the strong pull the Central Business District has on motorists from the East Rockingham area and Hamlet. Whether this is still the case since the completion of the shopping center would have to be determined by a new study, but at the time of the study it was found that Hamlet contributed the greatest number of external-internal trips* in Rockingham. It was found that 4,260 such trips in an average 24 hour period had one end in Rockingham and the other in Hamlet. There were 3,098 trips recorded as having had their outer termini between Rockingham and Hamlet.

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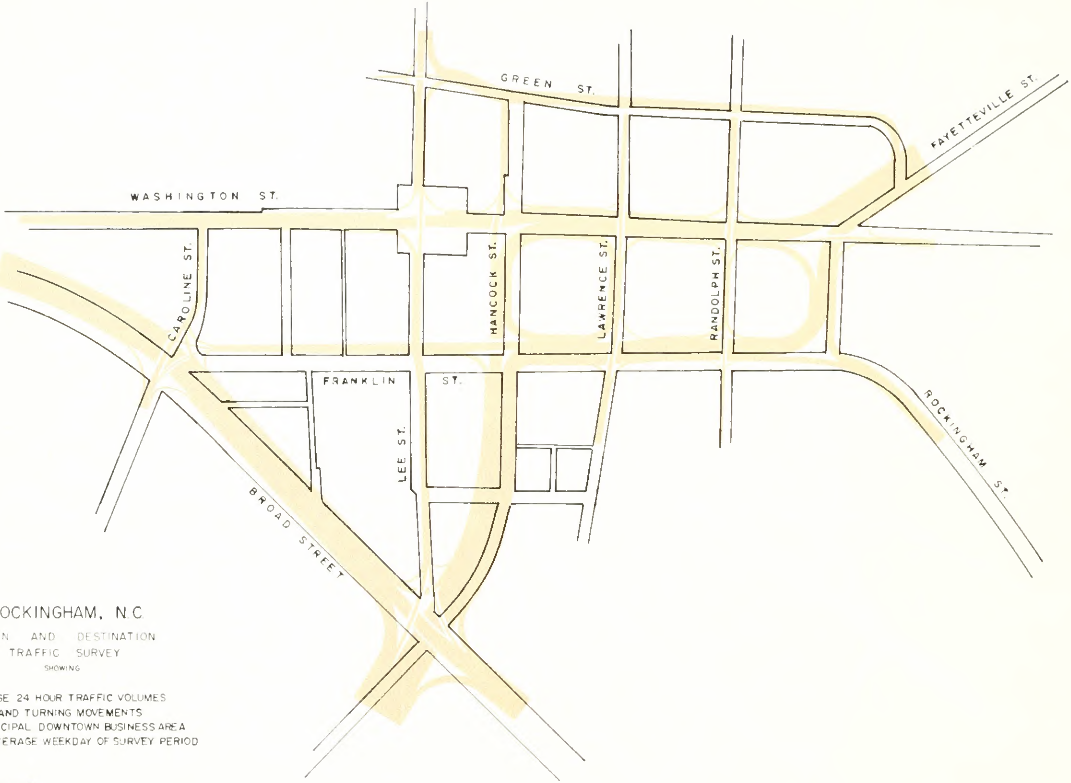
* A trip with one end of the trip located within the survey area and the other end outside the survey area.



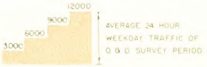
ROCKINGHAM, N.C.

ORIGIN AND DESTINATION
TRAFFIC SURVEY
SHOWING

AVERAGE 24 HOUR TRAFFIC VOLUMES
AND TURNING MOVEMENTS
FOR PRINCIPAL DOWNTOWN BUSINESS AREA
BASED ON AVERAGE WEEKDAY OF SURVEY PERIOD

LEGEND:

ANY DISCPEPANCY BETWEEN MOVEMENTS
& TOTALS IS THE RESULT OF VEHICLES STOPPING OR STARTING WITHIN AN INTERSECTION

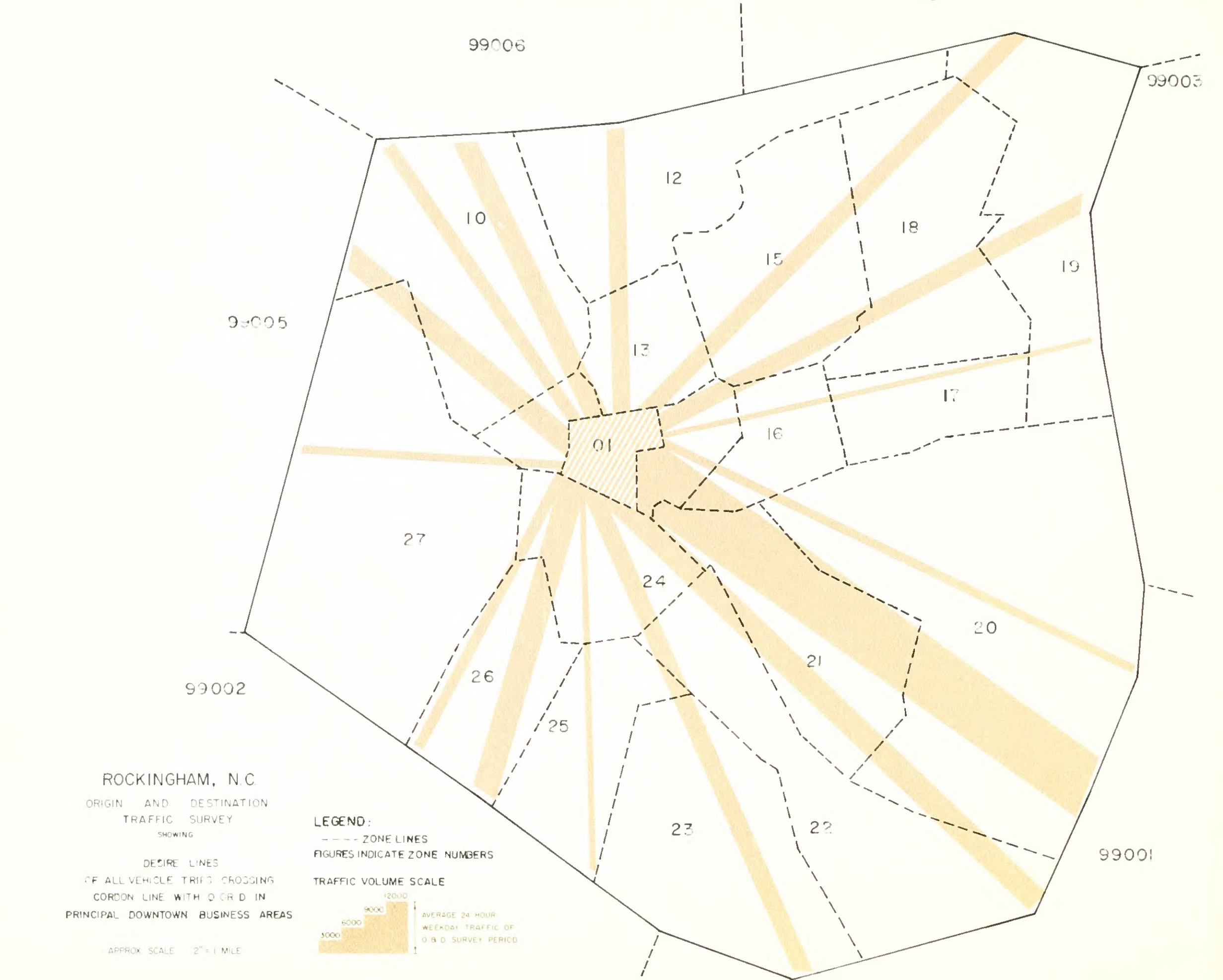


The average total number of external-internal trips recorded by the Highway Commission for a 24 hour period was 19,873, and of that total 8,493 trips or 45% had either trip origin or trip destination in the Central Business District. It was also found that on an average 24 hour day 4,950 trips or 20.6% of the total number of trips counted at the survey boundary were recorded as passing through Rockingham, but having their origin and destination outside the City. Most of these trips were on US Highway 74 Southeast and US 74 West. The 1,603 through trips on US 74 made it by far the predominant through route. US 220 North and US 1 South were the second most used through routes with a count of 817 vehicles. US 1 was third in relative through traffic volumes with a count of 657 vehicles. However, unlike the first two routes US 1 carries its traffic right through the main shopping streets of the City and therefore makes a much more noticeable effect on the traffic situations in the Central Business District.

The hourly traffic pattern was found to be as follows: 75.6% of the 24 hour weekday traffic was counted between 7 AM and 7 PM. The maximum peak for three hours in the morning was between 9 AM and 12 Noon when 17.0% of the 24 hour traffic volume was recorded. The maximum peak for the three hours in the afternoon was between 3 PM and 6 PM when 23.1% of the total 24 hour traffic volume was recorded.

From the above information it can be determined that the internal traffic is high in the Central Business District, but it is not yet so heavy that the streets cannot bear it. Yet, to make a statement that a street can take the traffic does not tell the whole story. The Highway Commission's primary responsibility is to move the most traffic the best and cheapest way possible, and thus in this respect they do their job well. However, sometimes the cost factor takes precedence over the best route factor and sight is lost of the primary reason for the existence of a downtown: that of serving the shoppers.

Therefore, to the public, shoppers in the downtown area should not be harassed by several thousand through traffic vehicles just because the volume is not sufficient to justify a by-pass; and



ROCKINGHAM, N.C.

ORIGIN AND DESTINATION
TRAFFIC SURVEY
SHOWING

DESIRE LINES
OF ALL VEHICLE TRIPS CROSSING
CORDON LINE WITH O OR D IN
PRINCIPAL DOWNTOWN BUSINESS AREAS

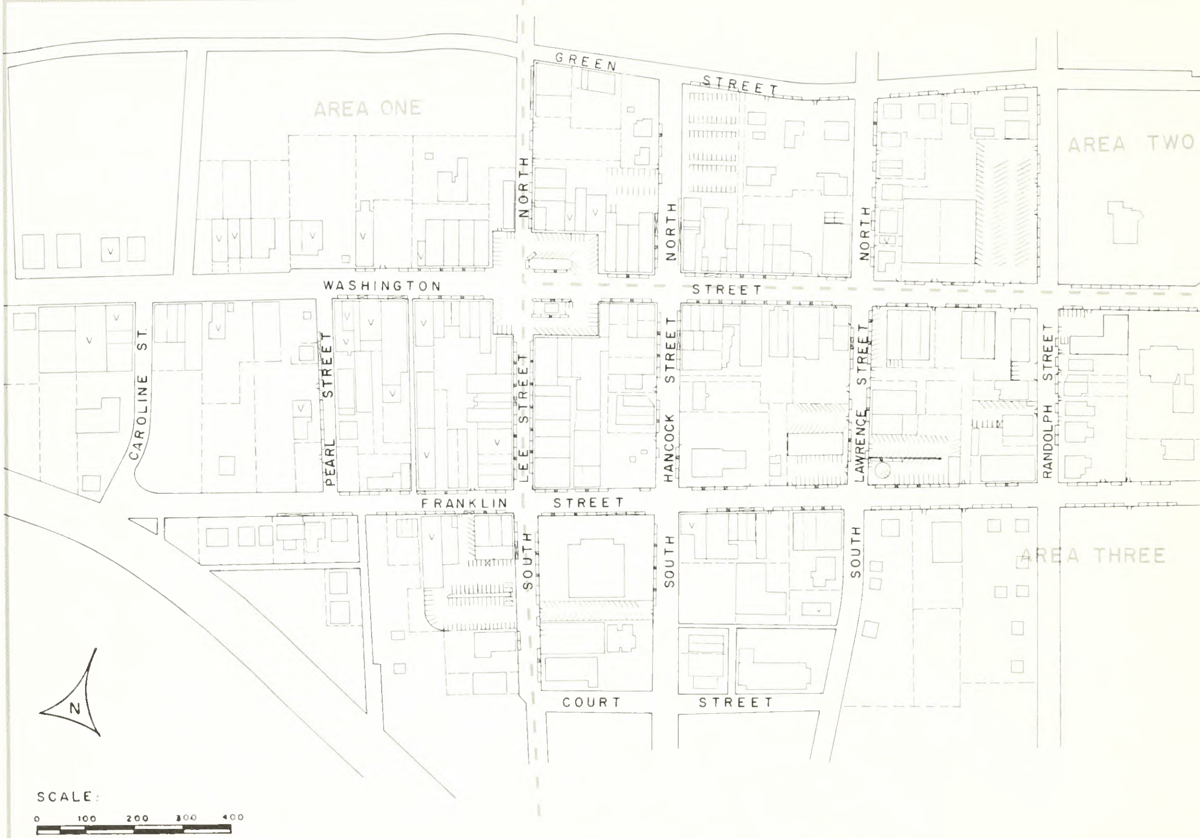
APPROX. SCALE 2" = 1 MILE

similarly through traffic should not have to worry about stopping at numerous intersections or slowing down to allow pedestrians to cross the street or vehicles to park. The City should exert as much influence as possible to see that the ideal is not compromised too greatly and that the Thoroughfare Plan which calls for traffic loops around the Central Business District is implemented.

B. PEDESTRIAN TRAFFIC

An organized pedestrian traffic count was not conducted for this report, however, visual checks on the number of people walking around in the Central Business District during peak hours revealed that the sidewalks were never very crowded and that the capacity of the sidewalks was not reached. There are several reasons for the small amount of pedestrian movement. First, the Central Business District area is a large one for a City the size of Rockingham, therefore, the shoppers are usually spread out over this area and do not have a chance to crowd together. Secondly, there is not a very large number of office workers to swell the pedestrian traffic at noon and coffee break hours. Thirdly, Rockingham, unlike most other cities of similar nature and size, does not have one street in particular where people gather to talk and loiter and make it difficult for others to pass by. Fourthly, the shopping population may be reduced somewhat due to the construction of the new shopping center and the insufficient number of convenient parking spaces.

At the present time the movement of pedestrian traffic does not seem to be one of the major problems of the downtown area. However, it could become so in the future if the general desirability of shopping in the Central Business District increases. The movement of pedestrian traffic could also become somewhat of a problem if parking lots are constructed in the center of the main shopping blocks, and thereby create a need for new sidewalks. If this situation should arise, the sidewalks should be built in accordance with the standards suggested in Section Three of this report.



CENTRAL BUSINESS DISTRICT

ROCKINGHAM, N.C.

C. PARKING FACILITIES

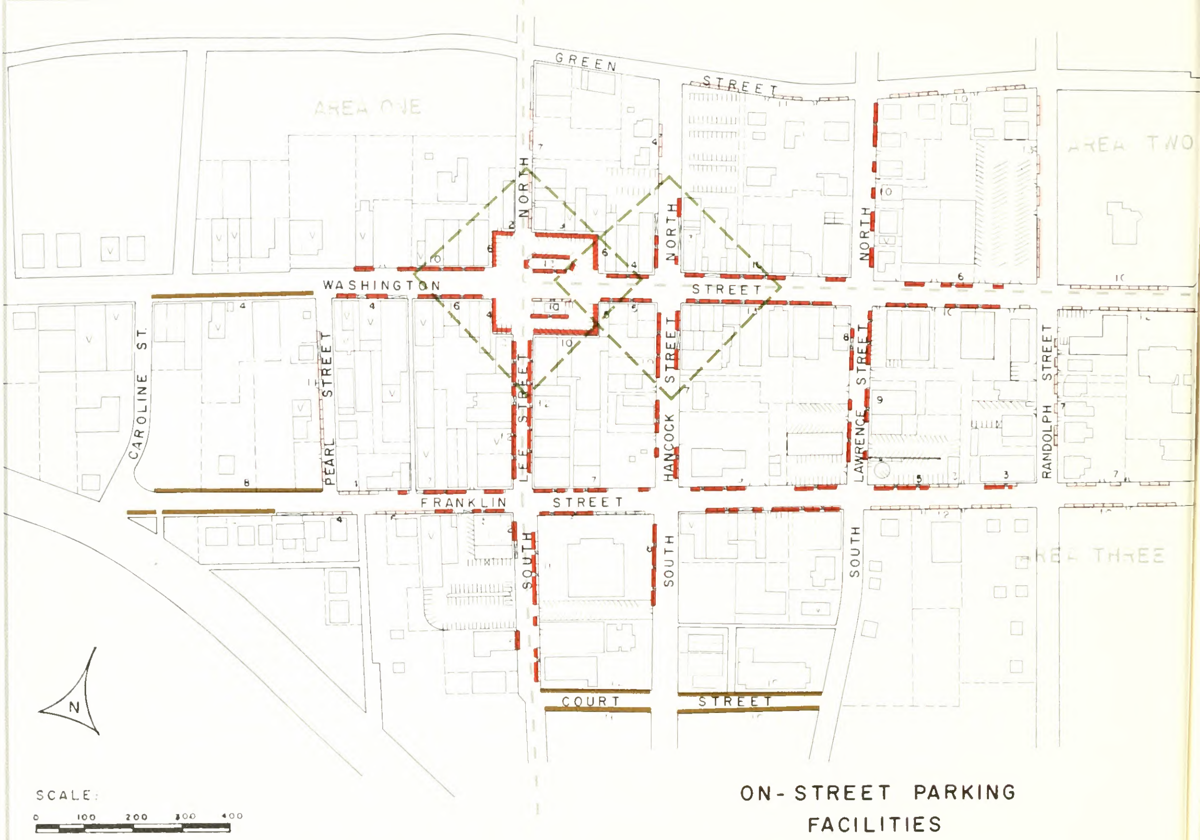
As it was previously mentioned at the beginning of this section, it was decided that the parking facilities and uses could be described more exactly if the Central Business District was divided into areas. The three areas are delineated on the map on the opposite page.

1. Location and Number

a. On-street Parking Spaces

The field survey of on-street parking conducted in May of 1965 disclosed a total of 487 parking spaces at the curb in the Central Business District, of those 275 are metered spaces. These metered spaces make up 56.4% of the total number of on-street spaces. There are 145 marked, unmetered spaces which make up 29.8% of the total curb spaces. In addition there are approximately 67 spaces that are neither metered or marked. These unmetered, unmarked spaces are primarily located at the western end of the core on Washington and Franklin Streets. These spaces are so far from the main core of retail stores that they are of very little importance to the study except for the parking they provide in their immediate area.

The most desirous on-street spaces in the Central Business District of Rockingham are located on Washington Street and Washington Square and Hancock Street. There are 98 spaces located within a 223 foot distance of this primary shopping demand area. These spaces make up 36% of the total number of on-street metered spaces. Another 120 spaces are located in secondary demand areas and make up 43.6% of the metered spaces. Only 47 spaces, or 20.4% of the metered spaces are outside both the primary and secondary demand areas.



ON-STREET PARKING FACILITIES

🟥 **METERED**

▨ **UNMETERED** ; MARKED

🟫 **UNMARKED** ; UNMETERED

CENTRAL BUSINESS DISTRICT

ROCKINGHAM, N.C.

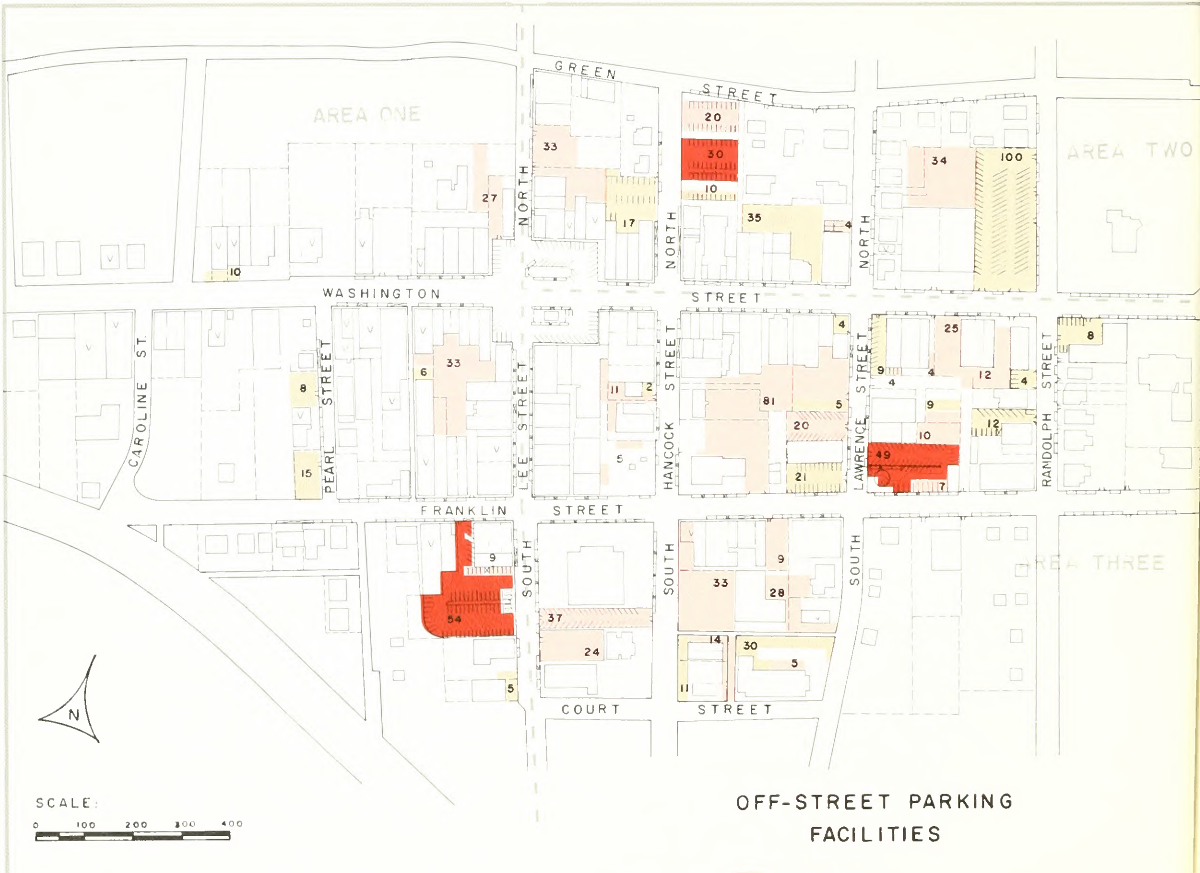
b. Off-Street Parking Spaces

The field survey of off-street parking facilities conducted in May of 1965 disclosed a total of 943 spaces. These spaces were classified under one of three areas. The three areas are: public, specific use or customer only, and private parking.

There are four public off-street parking lots in the Central Business District of Rockingham. There is a total of 154 spaces in the public lots. The oldest of the lots is the facility located on Franklin Street beside the Town Hall. This lot has metered space available for 56 cars, but 7 of the spaces are reserved for employees. There are two other metered lots located on South Lee Street and North Hancock Street respectively. The lot on South Lee Street has 67 spaces, and 13 of the spaces are reserved for private parking. The lot on North Hancock Street is actually a three level parking lot. There is a total of 60 spaces located in the three levels, however, only half the spaces are really available for public parking. Twenty of the spaces on the level nearest Green Street are rented privately, and ten of the spaces nearest Washington Street are rented privately by a store for customer parking. The three metered facilities allow all day parking. The fourth lot which is located on North Lee Street is unpaved and is not noticeably designated as a public lot. At present it has space for only 21 cars, but it could have more if properly developed.

In the core area of Rockingham's Central Business District there are 321 spaces classified as specific use or customer parking only. A specific use lot is the type of off-street facility such as might be found at a doctor's office or food market. Parking is permitted at a specific use lot only while you are seeking the goods or services of the establishments which provided the lot.

There were 468 spaces provided in private parking lots. A private facility is referred to as one which is either a rental lot for employees or a lot for company cars and trucks only. There are 7 more spaces located on public facilities than there are on private off-street facilities, but a more important aspect of this situation is that the majority of the private lots are more conveniently located than the public facilities. This is one of the more



OFF-STREET PARKING FACILITIES

🟥 PUBLIC

🟨 PUBLIC FOR SPECIFIC USES

▨ PRIVATE

CENTRAL BUSINESS DISTRICT

ROCKINGHAM, N.C.

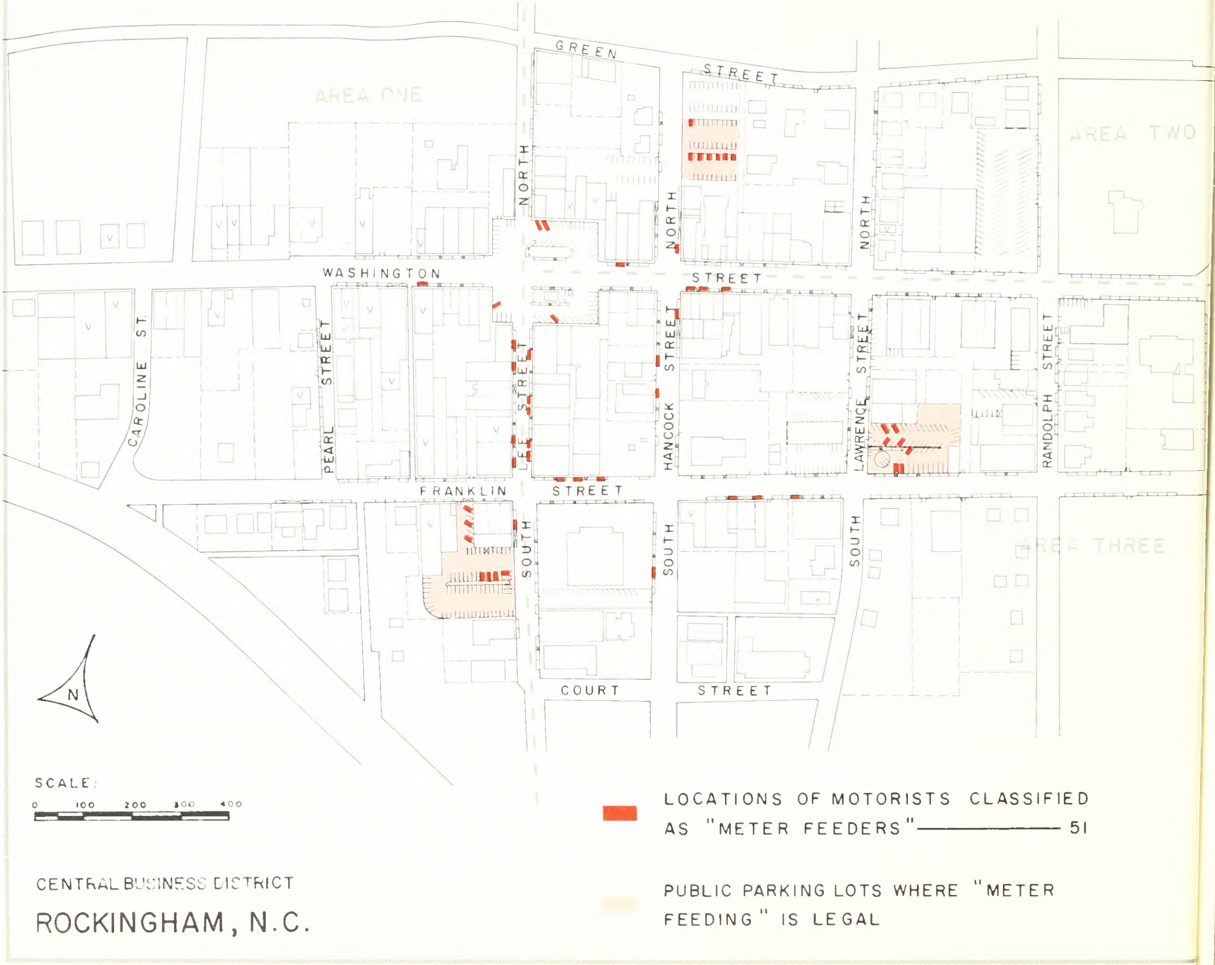
significant parts of Rockingham's parking problems. Studies have shown that the downtown employee concedes the fact that he will have to walk further to work than the shopper, but in Rockingham he does not have to.

2. USAGE OF FACILITIES

The parking characteristics of Downtown Rockingham were studied in the field in June 1965 on a Friday for seven hours; the weather was very pleasant that day as the sun was shining, yet it wasn't too hot. Friday is one of the heaviest shopping days, therefore, it was assumed that a picture could be gained of the nearly maximum usage of the parking facilities on this day. June is an average shopping month, and so the usages found should not be considered too small or too large by reason of the time of year.

The parking usage data primarily is employed to point out those areas where motorists actually do park and those areas where they would like to park. The information collected from the usage survey which was limited to the metered spaces at on- and off-street facilities was divided into four basic sections: percent usage of the facilities, average duration or time spent at the meters, average turnover or the average number of cars using a space, and the average walking distance the shopper parked from his destination. The facilities with the highest percent usage generally indicates those areas where the demand is highest. The average duration figures indicate the average length of time parkers spent at facilities and this information is useful in determining the best time limits to place on meters. The average turnover is closely related to duration and indicates the average number of cars that use a space during a day.

Another important aspect of the usage survey is the determination of the type and number of illegal parkers. Primary in this group of illegal parkers is the "meter feeder." The "meter feeder" is usually, but not in all cases, the employee who occupies one parking space all morning, afternoon, or even all day by continually depositing coins in the meter. In some cases the "meter feeder"



🟥 LOCATIONS OF MOTORISTS CLASSIFIED AS "METER FEEDERS" —————— 51

▨ PUBLIC PARKING LOTS WHERE "METER FEEDING" IS LEGAL

CENTRAL BUSINESS DISTRICT

ROCKINGHAM, N.C.

knows the routine of the officer checking the meters so well that he only feeds the meter when the officer is approaching his meter, and he thereby saves several nickels a day. These "meter feeders" deprive prospective customers of good convenient places to park and the merchants of profits. Curiously enough, it has been found in other studies that many merchants condone this sort of practice and many even participate in it themselves.

a. Percent Usage of Meters

The percent usage information is perhaps the most important data collected in the field surveys. It is the primary indicator of the major areas of demand, therefore, it indicates those areas where new parking facilities should possibly be built. It also indicates those facilities that are not used enough to support their existence.

The results of the survey show that most of the on-street parking spaces are used less than 80% of the day and that most of the off-street metered spaces are used less than 40% of the day. It was found that the spaces with the heaviest usage are the ones on the south side of Washington Square in front of Collins and Woods Department Stores, and the spaces around Belks on both Washington and Hancock Streets. The percentages in those areas ranged from 81% to 95% usage. A parking usage of 85% is considered very high,* but there were only five street frontages with this high a percentage. In order to have an extremely high percentage usage such as was the case around Washington Street Square, there must have been a high number of "meter feeders", or either there must have been heavy traffic in the area and spaces were filled as soon as they were vacated. The map on page 18 indicates the locations of "meter feeders" on the survey day. Since this map shows that the area in question had only one such violator, the high usage must be the result of a heavy flow of traffic awaiting the vacancy of a space and the heavy demand to park near the stores on these streets.

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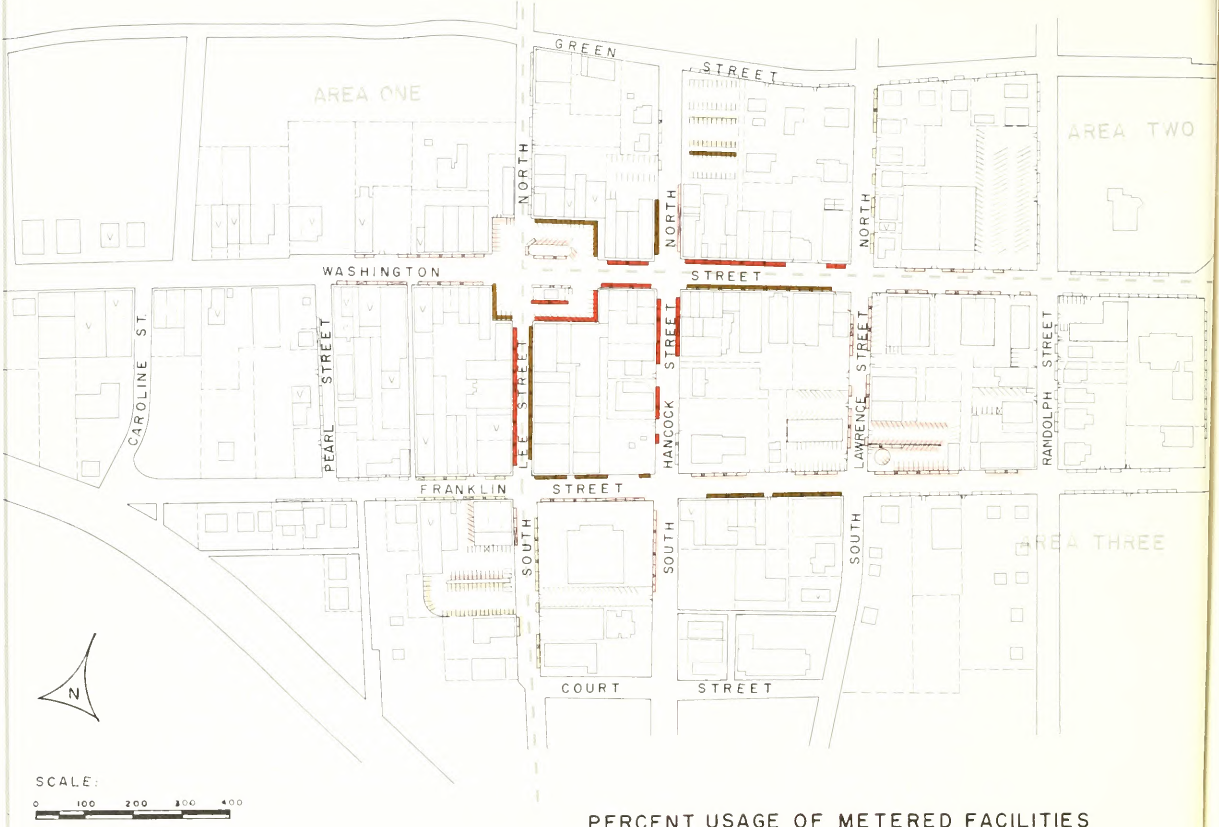
* Eno Foundation for Highway Traffic Control, Parking.



PERCENT USAGE OF METERED FACILITIES

🟥	ABOVE 80 PERCENT	▨	30 - 60 PERCENT
🟫	60 - 80 PERCENT	▨	BELOW 30 PERCENT

CENTRAL BUSINESS DISTRICT

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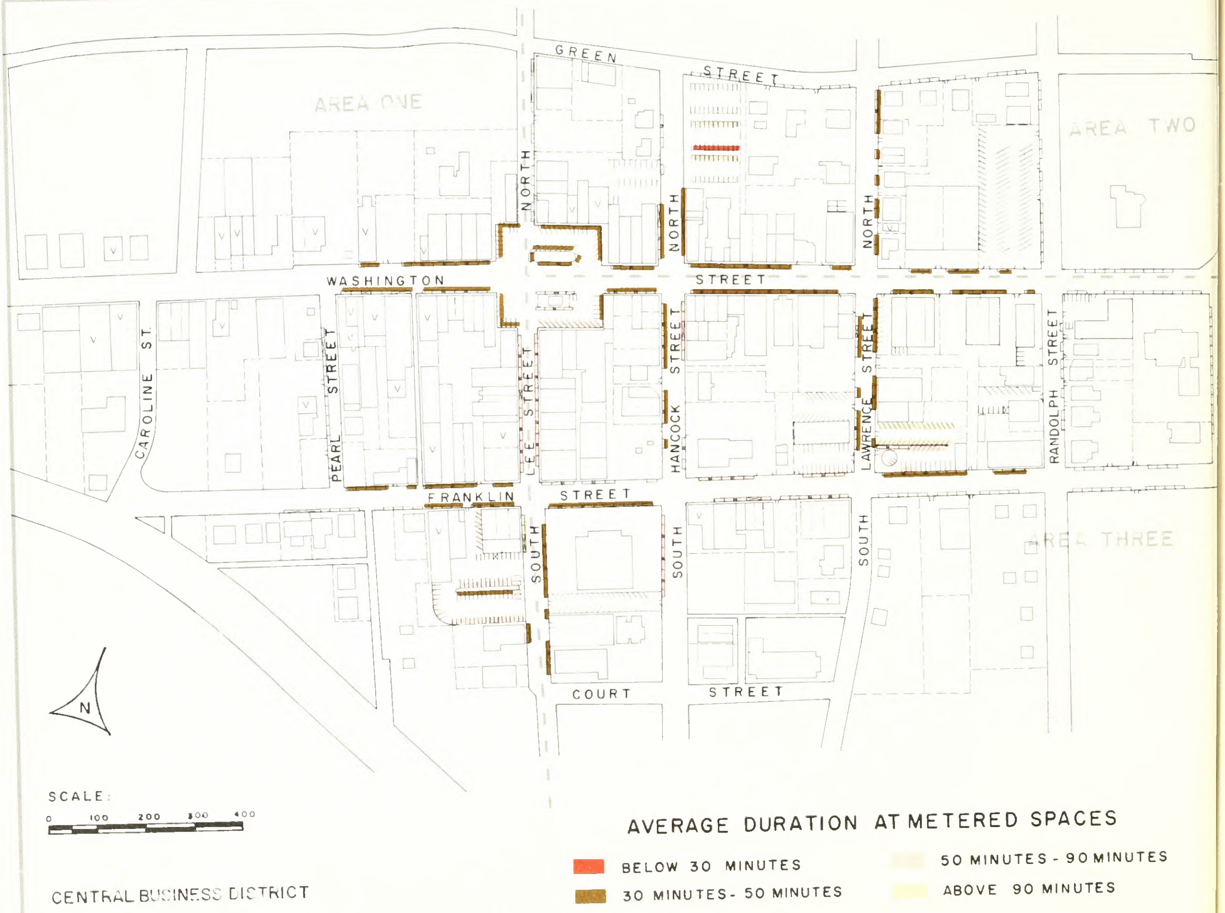
Rockingham had a number of streets that had low percentages of 50% or less usage. The metered parking lots had very little usage except by long-term parkers. All day parking is allowed at the municipal parking lots, and there were 21 vehicles recorded as taking advantage of this liberal policy of the City. The middle lot on Hancock Street had only one car to park in 20 spaces all day. This one car stayed in that one space all day. At the next level lot where there are 10 spaces available for the public, six of the spaces were used by long-term parkers for half a day or longer.

Looking at the percent usages by geographical areas that have been described previously the areas were all unusually close in over-all usage. Area one had an over-all usage of 56.2% at 61 on-street meters. Area two had an over-all usage of 57.7% at 62 on-street meters, and Area three had an over-all usage of 60.1% at 148 on-street meters. Although Area three had an over-all usage very close to the other areas, in actuality the usage shown for the over-all area is deceiving. The percent usages were very high in the major retail core of Area three. For example, at 34 meters along the street frontages of Washington Street and Hancock Street in the vicinity of Belks, the percent usage was a high 88.7% for a seven hour period.

The percent usages for the metered parking lots were not so equal as were the on-street percent usages in the different areas. The lot on South Lee Street, which is located in Area one, had a percent usage of 18.4% for a seven hour period. The lot on North Hancock Street located in Area two had a percent usage of 26.7%. The Lawrence Street lot located in Area three realized the best percent usage of the three lots. It had a percent usage of 40.7%. The greater usage in this lot is due to its greater proximity to parking generators. The Municipal Building, a hardware store, a savings and loan, and Sears and Roebuck are all either adjacent to the lot or very close by.



CENTRAL BUSINESS DISTRICT

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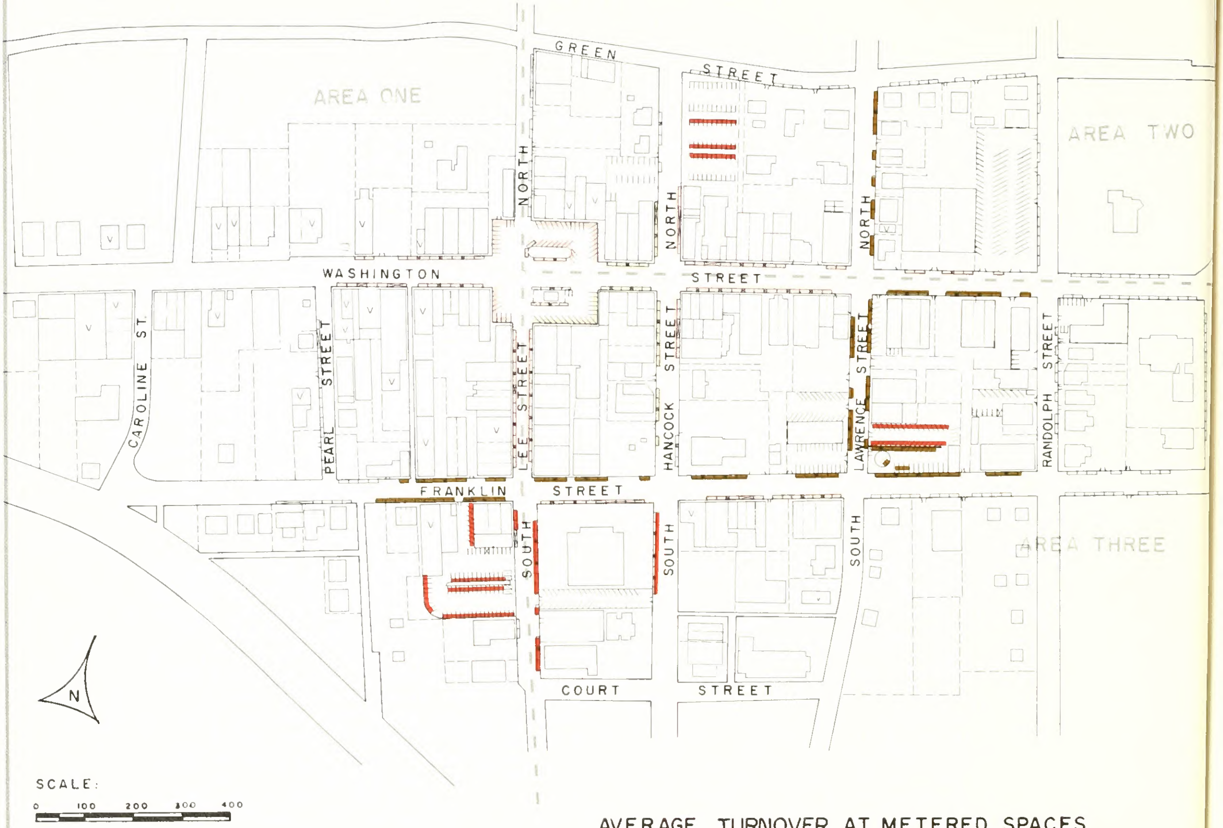
b. Metered Space Turnover

The parking turnover data indicates the average number of vehicles that parked in a metered space during the survey period of seven hours. There was a total of 1687 vehicles parked at the two-hour meters on the street and at the parking lots. Ninety percent of the vehicles recorded were parked at the on-street meters. This was a total of 1517 vehicles parked at 271 meters on the curb. The off-street lots parked a total of 170 cars at 115 off-street meters.

The on-street metered parking spaces had an average turnover of 5.59 cars per space. The parking lot meters had an average turnover of 1.48 cars per space. The turnover figure for the on-street spaces is a very desirable one when the rate is considered for other North Carolina towns. In Lumberton the turnover was 4.7 vehicles per space, and in Monroe the figure was 5.0 vehicles per space. The average turnover figure for Rockingham is also very close to the figure of 5.7 for cities and towns under 25,000 population as reported by the U. S. Bureau of Roads. The turnover figure for the parking lots is very low and indicates that there is very little usage of the lots and that the ones who do use the facility generally remain there longer than two hours.

The turnover figures presented are closely related to the parking demand created by the stores, and the accessibility and efficiency of the parking facility. It can be noted on the map on page 24 that the streets with the highest turnover figures are those which are nearest to the major stores on Washington and Hancock Streets. At 34 on-street meters on those streets in the vicinity of Belks the turnover rate was 8.73 cars per space for a seven hour survey period. This figure is considerably higher than the over-all average. The high turnover rate is indicative of a favorable condition, and that is that the most desirable parking spaces are not being taken up by "meter feeders" or by long-term parkers staying the full time limit of two hours. Instead they are being used for short-term trips as the spaces in the major demand area should be. However, this is not the case throughout the Central Business District area as many streets are plagued by "meter



AVERAGE TURNOVER AT METERED SPACES

🟥	BELOW 3 CARS PER SPACE	▫	5-8 CARS PER SPACE
🟫	3-5 CARS PER SPACE	🟨	ABOVE 8 CARS PER SPACE

CENTRAL BUSINESS DISTRICT

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feeders" and long-term shoppers. The most notable example of this type parking occurs on South Lee Street in the block between Washington and Franklin Streets. Twenty percent of the "meter feeders" were located along this block.

c. Metered Space Duration

The parking duration data indicates the average length of stay at a space. The duration data is closely related to the turnover data in that the greater number of cars using a facility would generally result in a shorter duration period. The duration data indicates the area where to expect short-term and long-term parkers.

In Rockingham on the survey day the parkers averaged a stay of 47.8 minutes at all the meters including on and off-street meters. The average stay at the on-street meters was 43.8 minutes and at the off-street meters it was one hour and 25.2 minutes.

The duration figures for Rockingham are very favorable. This is especially so when they are considered in the light of the recent studies made by the Division of Community Planning at Lumberton and Monroe, North Carolina. At the two hour meters in Lumberton the duration averaged 58 minutes one day and 67.9 minutes on another survey day. In the Monroe study the parkers averaged a stay of 57 minutes at the two hour meters.

At the strategically important meters located on the south side of Washington Street and Washington Square and on the west side of Hancock Street where the entrance to Belks is located, the average duration was 42.6 minutes at 34 meters. This was a very favorable figure because it indicated an absence of "meter feeders" in a very high usage area.

d. Walking Distances

Walking distance is one of the most important factors in the percent usage of any facility. The Eno Foundation for Highway Traffic Control reports in Parking that the average distance walked in cities under 25,000 population is 223 feet and that 77% of the parkers walk less than one block.

The municipal parking lots are far outside this primary walking distance. The facilities on South Lee Street and North Hancock Streets are approximately 500 feet distance from the major core of retail stores. The facility on Lawrence Street is approximately 800 feet distance from the core of retail stores. However, in the case of the Lawrence Street lot there are several parking generators either adjacent to the lot or very close by and thus its usage is generally higher than the other facilities.

There are 98 parking spaces at the curb within the primary walking distance area of 223 feet. These parking spaces are shown on the map on page 14 in the diamond shaped areas. There is a total of 962 public parking spaces in Rockingham including the on-street spaces, the municipal spaces, and the specific use spaces, but only the 98 on-street spaces mentioned above and 27 specific use spaces fall within the primary walking distance of 223 feet. Therefore, only 13% of the public spaces are actually within a convenient walking distance.

MUNICIPAL PARKING LOTS
LEFT - LAWRENCE STREET
BELOW - SOUTH LEE STREET
AND NORTH HANCOCK
STREET

3

CIRCULATION AND PARKING STANDARDS

A. MINIMUM RIGHT-OF-WAY WIDTHS AND PAVING WIDTHS

Several of the streets in the Central Business District of Rockingham are too small to allow adequate traffic flow. Therefore, if any streets are widened or developed in the downtown area, they should meet a standard that would alleviate the old situations of inadequacy. If a street is to be used as a major thoroughfare, then as a minimum, the width should allow for four moving lanes of 12 feet each, and there should also be room for two parking lanes of 10 feet each. The total pavement width including the moving lanes and the parking lanes should be 68 feet. The right-of-way width should allow for two sidewalks of 12 feet each as a minimum, and sidewalks up to 20 feet in width would be preferred.

B. PARKING REQUIREMENTS

In developing future parking facilities several considerations should be kept in mind. First, the lot must be accessible and clearly convenient to the major shopping area. Secondly, it should not be overly expensive to the customer. Thirdly, the lots should be attractive, which means paving, sidewalks, lighting, and preferably plantings and benches in the area. These are essential requirements because it is the woman that does most of the shopping for the family, and she will certainly avoid any lot that looks difficult to maneuver in, has unsavory characters hanging around, or is unsightly and muddy.

Development of the lots should be carried out with three different type parkers kept in mind. The first type parker is the short-term parker whose destination is one of the retail or professional offices in the core. This type parker should be provided with the most convenient lot in regard to easy accessibility and nearness to the core area.

The second type of parker to be provided for is the long-term parker. In Rockingham this type of parker usually comes to shop from an area that is outside the urban limits. Since a shopper from the greater trading area makes fewer trips, he needs more time in which to complete his business. Lots for this parker must still be accessible, but they can be further from the main core of stores, but preferably still on the fringe of the core. The lots must still be constructed with the requirements of attractiveness kept in mind, and they must be constructed in an area that the parker will not be afraid to leave his car.

The third type of parker to be accommodated is the employee. The employee is the long-term parker, but of a different kind than the long-term shopper. The employee needs a space for an all-day period rather than for three or four hours as in the case of the shopper. The employee lots should also be on the fringe of the core area if possible, and these lots like the other lots should be attractive, and in areas that the employee will not be afraid to leave his car all day.

4

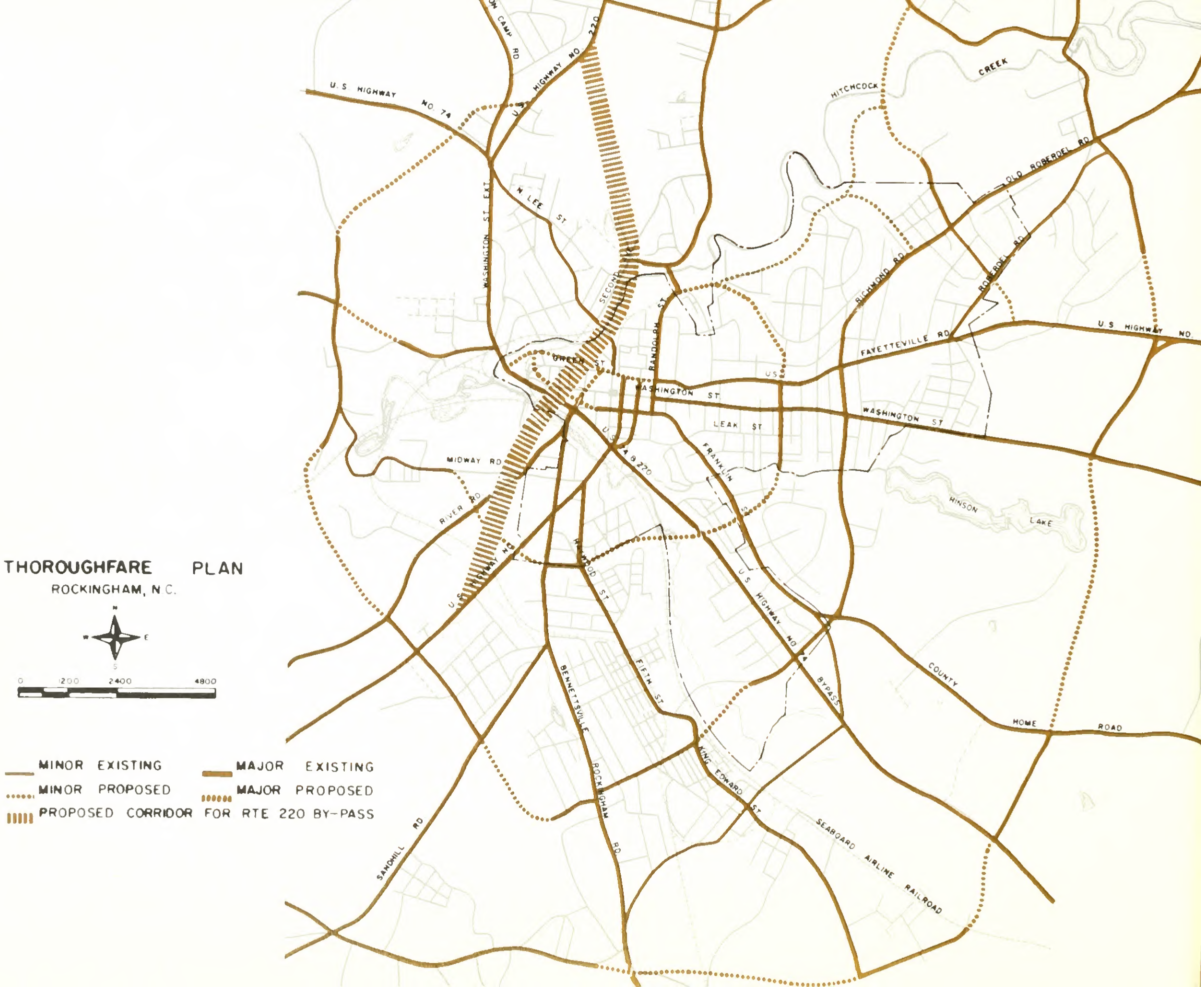
ANALYSIS

A. CIRCULATION SYSTEM INADEQUACIES AND THOROUGHFARE PLAN

The descriptions of the circulation system inadequacies and the plan for its improvement are taken from the Rockingham Land Development Plan. In that report published in March of 1964 by the Division of Community Planning, the inadequacies were listed and then the objectives of the Thoroughfare Plan were discussed. The Thoroughfare Plan was worked out with the cooperation of the Advance Planning Division of the Highway Commission using the latest known information on traffic conditions and expected traffic conditions.

The circulation system inadequacies stem primarily from the narrow streets and the fact that several downtown streets serve as major through streets. The bad alignment of several streets also contributes to the circulation problems as they form bottlenecks where the traffic should be moving smoothly. The main streets in question are: Washington Street, Lee Street, Green Street, and Caroline Street. Washington Street serves as a through street when it should be serving as a shopping street, and it is the one of the objectives of the thoroughfare plan to develop a loop street which will alleviate Washington Street of the burden of carrying US Highway 1 traffic. Lee Street, Green Street, and Franklin Street are all in need of being widened. Caroline Street is improperly aligned as is the case with Pearl Street.

With the inadequacies kept in mind the features of the Thoroughfare Plan are as follows:



THOROUGHFARE PLAN

ROCKINGHAM, N.C.

1. Greater accessibility to the Central Business District and the adjoining Urban Renewal Project Area. Accessibility is a needed feature in order to maintain the Central Business District as the main retail core of the county region. The predominant factor in the improvement of the accessibility of the Central Business District is the construction of the 220 By-pass, however, the improvement of other radials such as North Lee Street, North Randolph Street, River Road, and others will also help the accessibility.

2. Conversion of South Hancock and South Lawrence Streets into one-way couples. The existing traffic volume along South Hancock Street (8400 vehicles per day) and the expected increase in the future make this factor necessary. Another possible solution in alleviating congestion along this street is to widen it, but this solution is much more costly and therefore less feasible than the one-way streets.

3. The conversion of Green Street to a major downtown thoroughfare. This is a necessary feature because Green Street will be a most important link between the US 220 By-pass once it is completed and the eastern and northeastern part of the City. The street will, of course, need to be widened and realigned in places.

4. The eventual phasing out of Washington Street as a major through street. Green and Franklin Streets would take the place of this street and Washington Street would become a shopping street and acquire an environment more conducive to pedestrian shoppers.

5. By-passing through traffic around the Central Business District. Traffic congestion, a major cause for the decline of the Central Business District may be partially relieved through the construction of loop streets, which would divert through traffic bound for other destinations.

PRIVATE
PARKING

EXPIRED
10
2
90

B. EXISTING PARKING DEFICIENCIES

The streets of Rockingham now provide most of the usable customer parking spaces in the downtown area. There are 487 spaces for parking in the core area at the curb. These spaces make up only 34.1% of the total spaces in the core, but they provide over 50.6% of the total spaces in which customers can park. However, in practice the curb spaces provide an even greater percentage of the customer parking spaces. The survey data illustrates this fact. There were 1687 vehicles parked in the Central Business District during a seven hour survey period and only 170 of the vehicles counted were parked in the metered parking lots. Therefore, 90% of the vehicles parked at the meters were parked at the on-street meters. The principal customers of the parking lots were the employees who parked all day and thereby took advantage of the liberal policy of the City, which allows all day parking. The parking lots are entirely too far away from the main core of stores to be of any great use to the merchants except as lots where their employees can park or where long-term shoppers can park.

The parking lots were not the only places where motorists were parking all day. There were 31 cars "feeding the meter" at the on-street meters. Fortunately, however, most of these "meter feeders" were not parked in the primary demand area on Washington and Hancock Streets. The over-all parking situation in Rockingham could be described as a set of plus and minuses. On the plus side are the favorable parking characteristics exhibited by motorists at the on-street meters in front of the major retail stores. On the minus side are the large number of "meter feeders", the small number of public parking spaces within a convenient walking distance. Also on the minus side of the parking situation is the fact that the on-street parking spaces provide the majority of the public parking spaces. Before the end of the planning period or perhaps even sooner, the traffic volumes will be so heavy as to require the removal of the meters. Because of this foreseeable event the City should make a strong effort to acquire convenient off-street spaces which will have to replace the on-street spaces.

1. Number of Spaces Needed

One of the most popular methods by which planners figure the amount of parking needed utilizes a comparison of gross floor area with gross parking area. In this method a certain amount of parking space is determined to be needed for a certain amount of gross retail floor space, or office space, or other uses. At present most shopping centers are requiring from 4 to 7 times as much space for parking as for gross retail floor space. When parking is determined by this method, 400 square feet is allowed for each car. This figure allows for the area needed for drives, dead space, plantings, and entrances. Since it is unreasonable to expect that the parking ratio reached in shopping centers could be achieved downtown because of lack of space and high land cost, a ratio of two square feet of parking to one square foot of primary retail use and a ratio of one to one for all other uses will be utilized in estimating the parking need.

In figuring the needs for the Central Business District, the district was divided into three areas. It was necessary to do this because the deficiency for the whole area does not appear to be as severe as the situation really is in parts of the Central Business District. The three divisions are delineated on the map on page 12. Area two takes in all the stores north of Washington Street and east of Lee Street. Area one takes in all the stores west of Lee Street. This street is also a boundary line for the Urban Renewal Project, therefore, all the stores in area one are also in the Urban Renewal Project. Area three takes in the stores south of Washington Street and east of Lee Street. Located in Area three are virtually all the major retail stores and office buildings including the Court House and the Municipal Building. It is in Area three that the major need for public parking exists.

Using a ratio of two square feet of parking to one square foot of retail usage, and a one to one ratio for all other uses, Area one would need the following amount of spaces:

Primary Retail 15,200 sq. ft. at a 2 to 1 ratio = 76 spaces

All Other Uses 76,100 sq. ft. at a 1 to 1 ratio = 190 spaces

Existing Total Need for Customer Parking = 266 spaces

Existing Total Supply of Spaces for Customer Parking = 208 spaces

Present Parking Deficiency in Area One = 58 spaces

Since Area one is in the Urban Renewal Project Area and very stringent parking requirements have been set in that area in the event of the completion of the project, it will be assumed that this section of the business district will take care of itself upon the reconstruction of businesses in that area, and so a recommendation will not be made in this area that the deficiency be made up.

Using the same method of computation as above, Area two would need the following amount of spaces:

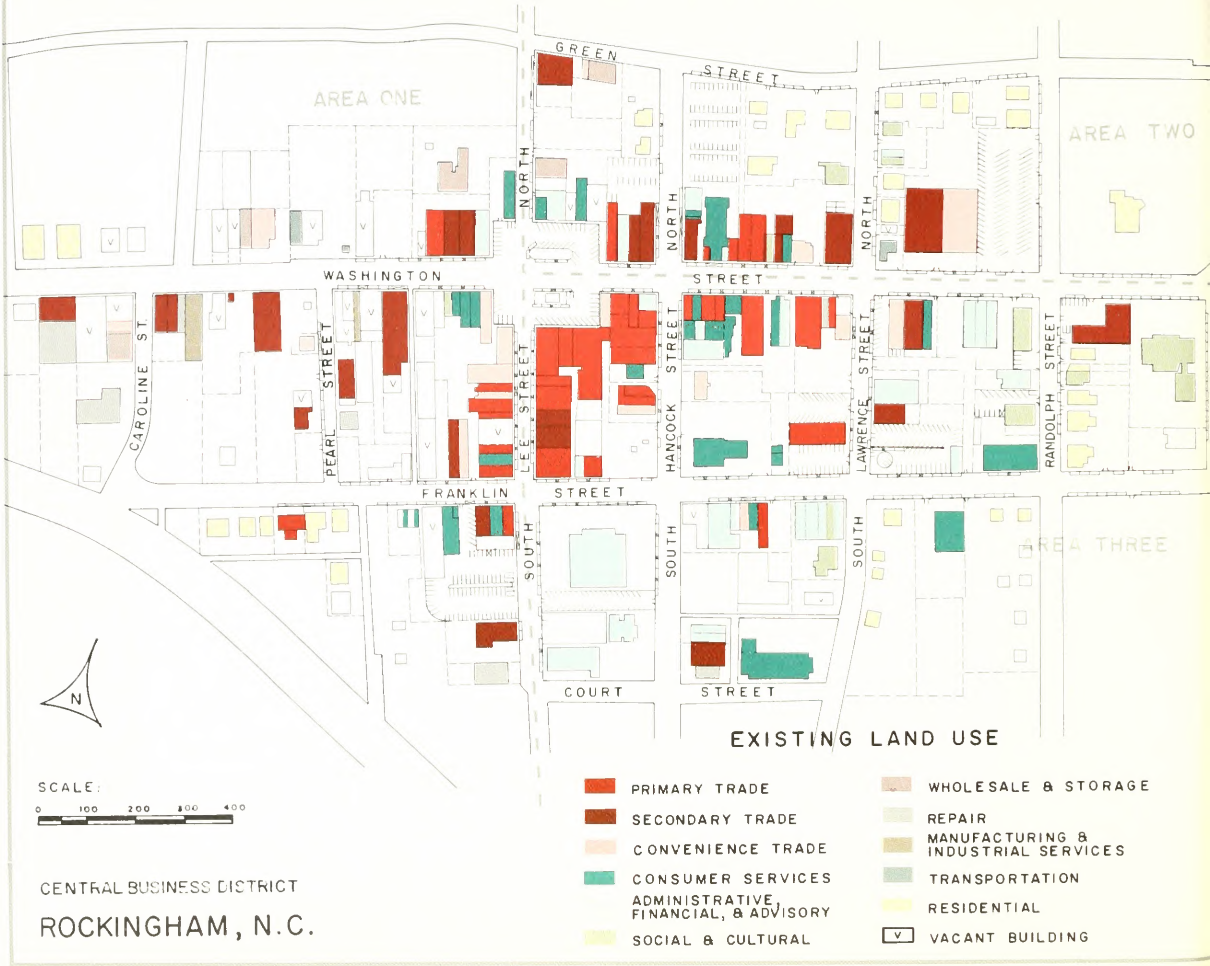
Primary Retail 9,000 sq. ft. at a 2 to 1 ratio = 45 spaces

All Other Uses 59,000 sq. ft. at a 1 to 1 ratio = 148 spaces

Existing Total Need for Customer Parking = 193 spaces

Existing Total Supply of Spaces for Customer Parking = 138 spaces

Most of the stores in Area two are in a deteriorating condition and primarily deal with secondary and convenience uses rather than primary retail uses. The surplus in this area is mainly due to the several public lots and the large customer lot located



EXISTING LAND USE

CENTRAL BUSINESS DISTRICT

ROCKINGHAM, N.C.

beside the food store. The surplus cannot be deemed as great in this area as it might seem because the spaces in this area are also used by the customers of Area three which has a very substantial deficiency.

Area three is the largest and most important of the areas. It contains the most primary retail stores and offices. Using the same methods to compute its parking needs as for the previous areas, Area three would need the following amount of spaces:

Primary Retail 78,075 sq. ft. at a 2 to 1 ratio = 390 spaces

All Other Uses 192,175 sq. ft. at a 1 to 1 ratio = 480 spaces

Existing Total Need for Customer Parking = 870 spaces

Existing Total Supply of Spaces for Customer Parking = 423 spaces

Present Parking Deficiency in Area three = 447 spaces

Area three has a considerable parking deficiency for a number of reasons, but primarily the reason for the inadequacy lies in the fact that all the new construction of businesses and offices has taken place in this area, and at the same time the supply of parking for these new businesses and offices has lagged pitifully behind. Merchants in the Urban Renewal Area have been relocated in Area three and they have created a new expansion of the Central Business District towards the east. It is hoped that this trend will be stopped once the Urban Renewal Area is cleared and land in that area becomes available for redevelopment.

The potential for making up the deficiency in Area three lies in the large number of private spaces located in this area in convenient places. If a substantial number of the 329 spaces recorded as being private parking could be purchased or traded for one of the more distant public parking lots, then the parking situation would become much more tolerable for the customers of the stores in that area.

C. COMPARISON OF 1960 FACILITIES AND NEEDS WITH 1965'S

The 1960 findings on parking and traffic circulation were only a small part of the total report, yet, they were covered in sufficient detail to warrant a comparison with the more specific findings of this present report. The comparison has relevance to this report because it gives the City of Rockingham and the Division of Community Planning a chance to see how well the City has progressed toward the parking goal set for it in 1960.

The findings presented here on the conditions in Rockingham in 1960 were taken directly from the Rockingham Central Business District Study, and those interested in more details of the plan are referred to that publication. The parking needs of the City of Rockingham were computed in 1960 just as they were in 1965 on the basis of a ratio of floor space to parking space, therefore, the building usages and the resulting computations for both 1960 and 1965 will be presented. The existing Central Business District type floor space in 1960 compared with 1965 is as follows:

	1960	1965
Primary Retail	97,275 sq.ft.	102,275 sq.ft.
Secondary Retail	108,550 sq.ft.	110,550 sq.ft.
Convenience	25,575 sq.ft.	37,700 sq.ft.
Personal & Amusement Services	65,975 sq.ft.	67,265 sq.ft.
Administrative, Financial and Adv.	104,375 sq.ft.	110,500 sq.ft.

The comparison of building square footages indicates that there has been an increase in every category of use since 1960. This is a significant factor since a number of buildings located in the Urban Renewal Area were vacated or torn down, and thus presenting the possibility of a decreased total square foot usage.

Using the same ratio of parking space to floor space the 1960 and 1965 parking needs would be:

1960

Primary Retail 97,275 sq.ft. at a 2 to 1 ratio = 486 spaces

All Other Uses 304,475 sq.ft. at a 1 to 1 ratio = 737 spaces

Total 1960 Existing Need = 1283 spaces

Total 1960 Existing Supply of Public Spaces = 877 spaces

1960 Parking Supply Deficiency = 406 spaces

1965

Primary Retail 102,275 sq.ft. at a 2 to 1 ratio = 511 spaces

All Other Uses 327,375 sq.ft. at a 1 to 1 ratio = 818 spaces

Total 1965 Existing Need = 1329 spaces

Total 1965 Existing Supply of Public Spaces = 962 spaces

1965 Parking Supply Deficiency = 367 spaces*

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* The parking supply and deficiency are treated in more detail in the previous chapter where the parking needs of the Central Business District are ascertained by using districts.

From this comparison it can be seen that the parking deficiency is less in 1965 than it was in 1960 even though the overall square footage of uses has increased by almost 28,000 square feet. However, the decrease in deficiency is not really a very substantial one. Only 85 spaces have been added in five years, and the deficiency has only been reduced by 39 spaces. This is far below the goal of 80 new spaces each year set forward in the 1960 Central Business District Plan. It should be mentioned that in actuality the City has acquired another 40 spaces, but the City has rented them out because of low usage in the parking lots. The fact that the usage in the municipal parking lots is so low that the City has to rent some of the spaces, points out the importance of acquiring lots within a reasonable walking distance. At the present time the parking lots on South Lee Street and North Hancock Street are hardly paying for themselves. They could be used more profitably if the City or another body could acquire a more central lot to be used for public parking and then rent the spaces in the distant parking lots for private parking.

D. ANALYSIS OF EFFECT URBAN RENEWAL WILL HAVE ON PARKING AND TRAFFIC CIRCULATION

Because the Urban Renewal Project affecting about half of the Central Business District area was begun after the Central Business District Plan was completed in 1960, it seems relevant to study how much the Central Business District Plan was affected and more particular how parking and traffic circulation will be affected upon the completion of the project. The information discussed here on the Urban Renewal Project was taken from a pamphlet called "A New Look for Rockingham, N. C." written and distributed by the City Planning and Architectural Associates of Chapel Hill, North Carolina, the firm in charge of the overall planning for the Urban Renewal Project.

The Westside Urban Renewal Area is a 73 acre tract taking in all of the downtown stores west of Lee Street. For a number of years the stores in this area have presented a very blighted look, and an economic drain on the town. In recent years many stores have been vacated in that area and have remained that way. There has not been any new construction or major remodeling in the area for several years. The housing that exists in the area is appalling. It is almost totally dilapidated. Therefore, the main object of project is to remove both the commercial and residential blight in the area and to make the area an attractive side for prospective commercial developers and to new residents. At the present the land is divided as follows: Residential - 23.8 acres; Commercial and Industrial - 23.7 acres; Vacant - 8.2 acres; Streets 17.3 acres.

About 57% of the buildings in this area were found to be blighted beyond a degree to which no productive use could be made of them. The total number of buildings in the area is around 170, of which over a hundred are residential dwellings. In the new plan not as much land will be devoted to residential use, but a public housing project to be built beyond the western extremities of the project will aid in the relocation of those in the urban renewal area that become displaced. The plan for the distribution of the land under the Urban Renewal Area Plan is as follows: Residential - 7.1 acres; Commercial and Industrial - 37.3 acres; Park - 5.6 acres; Streets - 23.0 acres.

The existing major streets in the area are Washington Street, Lee Street, and Broad Avenue. Neither Washington nor Lee Street have adequate widths or alignnment. Lee Street will be widened through the project area, except for a short section next to the courthouse. This portion of Lee Street will be converted to central retail use. The through traffic function served by Washington Street will be supplemented by a widened and realigned Green Street. Washington Street will become a local street to provide access to abutting properties. Since the alignment and width of Broad Avenue are adequate, no changes are proposed for this street. Franklin and Caroline Streets will also be realigned, and they together with Green Street will provide direct access to downtown parking and to the local streets within the area. Pearl Street will be vacated.

The general provisions of the redevelopment plan adequately cover the various aspects of parking in the area. Design and layout of the facilities including dimensions of parking stalls and the types of materials to be used in paving are all adequately covered so that no further discussion needs to be made here.

In addition the redevelopment plan contains these provisions in respect to the central retail area: The number of spaces for provision of parking in the retail area shall be at least one space per 100 square feet of gross floor space used or intended for retail purposes; at least one space per 160 square feet of gross floor space used for service, offices and similar uses. This is a stringent requirement. In the Parking Need section it was computed that the existing stores needed 266 spaces using a 2 to 1 ratio for retail uses and 1 to 1 ratio for all other uses. However, using the redevelopment plan method and applying them to existing structures, 627 spaces would be needed. This is a desirable situation, but as it has been stated previously it is almost impossible to achieve this much parking in a high density shopping area where the costs of acquiring land are so high. The Urban Renewal Commission is assuring the merchants and the customers in that area that there will always be sufficient parking by using this stringent requirement, which is a very desirable situation for both.

Basically, the only change the Urban Renewal Plan makes on the Central Business District Plan developed in 1960 is the elimination of Pearl Street. The stores on Washington Street and Lee Street can be developed as they are shown on the Central Business District Plan, and the same holds true for the parking areas. With the improved accessibility due to the widened and improved streets and the new stores in the area, the Urban Renewal Project will be a tremendous boost to the whole downtown. It will allow it to better compete with the shopping center, and restore to Downtown Rockingham the center of retail trade activity in the County.

5

CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The parking situation in Rockingham is now in a very critical stage. At the time of this writing the merchants of the downtown stores are asking for the removal of the on-street parking meters. This request by the merchants has been precipitated to a large degree by the recent construction of a shopping center which offers acres of free parking, and by the decision of nearby Hamlet to remove its parking meters. It is easy to understand how the proponents for the removal of the parking meters feel. Almost everyone has experienced the displeasure of finding a choice parking space and then discover that you do not have a nickel to put in the meter. However, what these merchants and shoppers do not realize is that parking meters have provided the best and cheapest means so far of assuring shoppers that a space will be available. The absence of meters makes the job of detecting overtime parkers infinitely more difficult and expensive.

The merchants are correct in their appraisal that something is wrong with the parking situation, however, it is not the on-street meters. The trouble lies in the poor downtown circulation, the inaccessible and distant parking lots; and indirectly the ills which the merchants are trying to cure by removing the parking meters, lie in the shabby looks of many of the stores, even those outside the Urban Renewal Area and the lack of customer amenities such as a sidewalk canopy, rest areas, and a pleasant appearance of both the fronts and rears of stores.

The survey data disclosed the fact that the meters were doing their job miraculously well. Turnover and duration, the two most important aspects concerning parking, were much better than average. The following principal findings of the parking survey illustrate the effectiveness of the meters.

In the areas around the major retail stores the duration and turnover rates were extremely good for the on-street meters. For example, at 34 principal meters on Washington and Hancock Streets in front of the major stores the percent usage was a high 88.6%, the turnover was 8.73 vehicles per space for the survey period of seven hours, and the duration was an average stay of 42.6 minutes per vehicle. The duration and turnover results are significant because the meters in question are two-hour meters. Therefore, if each car parked in these spaces had stayed the whole allotted time, the average duration would be two hours per car rather than the 42.6 minutes per car which was recorded. The maximum number of cars that could use a space during a day if each stayed the whole two hours would be four. The conclusion that is drawn from the above information is that the merchants in the principal demand area are able to serve over twice as many shoppers as the time limits on the parking meters would infer that they could. There were 31 vehicles recorded as being "meter feeders." While the majority of these "meter feeders" were located in out-of-the-way areas, it is to be suspected that with a change to unmetered parking that the number of overtime parkers would increase greatly and also afflict those areas where at present they are enjoying good usage.

Looking at the Central Business District as a whole, the estimated parking space deficiency for 1965 is 367 spaces. However, as it was explained in the parking deficiency chapter a clearer picture can be gained of the parking situation by dividing the town into three areas. The first area contained all those Central Business District stores in the Urban Renewal Area. The calculations for this area show a present deficiency of 58 spaces, however, since the buildings on which these calculations were made will be torn down, no recommendation will be made that these spaces be added. It is felt that the stringent requirements on parking in that section will take care of any parking need, and ultimately that section may have as many as 600 customer spaces. The second section of the Central Business District contains those stores east of North Lee Street and North of Washington Street. The calculations show that this section has a surplus of 138 spaces.

The surplus is partly due to a number of vacant stores. It is not recommended that these surplus spaces be done away with because if any revitalization process takes place and the vacant stores become reoccupied, then the surplus will be needed. Another reason for keeping the surplus spaces is the fact that the deficiency is so great in section three that customers of the stores in this section are forced to use the spaces in Section Two. As it has already been mentioned, Section Three has the largest deficiency. Calculations show that Section Three, which contains most of the major retail stores and administrative offices, has a deficiency of 447 spaces.

Other factors that would help the parking situation would be to redesign several of the parking facilities and make them more attractive and accessible. At present there are vacant, unsightly areas behind the most valuable business property in the downtown that could also become very valuable parking lots upon the double-fronting of the stores and the paving of the lots in the area mentioned. Better enforcement of the meters by police officers, and the acceptance of a policy of not parking at on-street meters by merchants and their employees would mean the increase of a number of spaces each day for customer use.

B. RECOMMENDATIONS

The primary recommendations are reiterations of previous recommendations contained in the Central Business District study and the Land Development Plan. It is definitely felt that these recommendations should be implemented. The principal recommendations contained in these two reports are as follows:

1. A major traffic loop should be developed around the Central Business District which would provide easy access from outside or within the City.

2. A system of streets within the Central Business District should be developed to provide efficient traffic movement for shoppers and for trucks servicing each store.

3. Pedestrian and automobile traffic should be separated in those areas where primary shopping activities are concentrated.

4. Off-street parking should be developed adjacent to the major streets and closely related to the commercial establishments it serves.

5. Develop a perimeter parking system. Ring the potential retail and service area with a rim of parking spaces along the City blocks south of Green Street, north of Franklin Street, and west of Rockingham Road.

6. Develop parking decks on steep terrian between Washington and Green Street.

7. Consolidate the existing piece-meal parking within each block into one comprehensive parking area. The elimination of existing waste of spaces should precede the development of any new ones.

The principal recommendations of the present study are in the realm of parking deficiencies. The study shows that the section of the Central Business District that contains the Urban Renewal Area will take care of itself, and therefore, it will be recommended that at the present time the City make no attempt to gain spaces in this area. The study revealed that there was a surplus of spaces at present in Area two, but it is recommended that these spaces be held on to and used as best as they can be used -- such as renting them out privately as is being done at present. It is felt that in the future these spaces will be needed, and that there will probably be a need to construct parking decks over the existing lots before the end of the planning period of 1980.

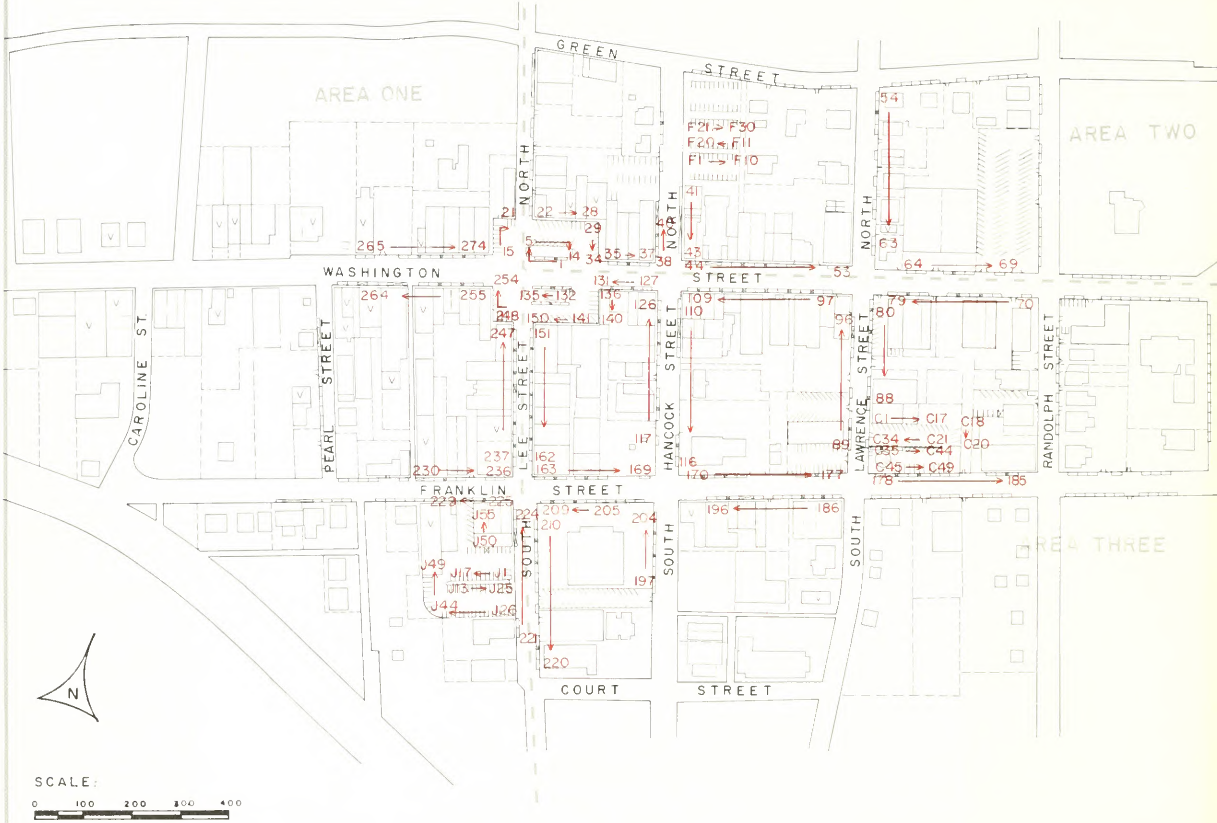
The deficiency in Section three of 447 spaces is the main problem to be overcome. This section of the Central Business District is the largest and most important to the City. Its deficient spaces must be acquired. The deficiency could be made up by adding 80 spaces each year in this area. It was recommended in the 1960 Central Business District Study that the City add 80 spaces each year for the next twenty years until a total of 2,461 spaces, the projected figure, was acquired. There is no reason to believe that the projected figure should not remain as the goal for the City of Rockingham to aim for.

Area three is the area where the new parking spaces should be acquired first. There are a number of spaces available for private parking in this area now. An attempt should be made to acquire as many of these lots and spaces as possible. The spaces should possibly be acquired by purchase, or by trade for the spaces in the most distant municipal lots, or they could be acquired by lease agreements.

McNAIR
FURNITURE

6

APPENDIX



CENTRAL BUSINESS DISTRICT

ROCKINGHAM, N.C.

LOCATION OF METERS BY IDENTIFICATION NUMBER

STREET	SPACES	NUMBER	SPACE HOURS	NUMBER OF VEHICLES	USAGE HOURS	PERCENT USAGE	TURNOVER	DURATION
WASHINGTON ST.	70-79	10	70	36	24.5	35.00	3.60	40.8 min.
LAWRENCE ST.	80-88	9	63	40	25.5	40.47	4.44	38.4 min.
LAWRENCE ST.	89-96	8	56	32	21.0	37.50	4.00	39.6 min.
WASHINGTON ST.	97.109	13	91	78	68.0	74.72	6.00	52.2 min.
HANCOCK ST.	110-113	4	28	27	25.5	91.07	6.75	56.4 min.
HANCOCK ST.	117-126	10	70	80	57.0	81.42	8.00	42.6 min.
WASHINGTON	127-131	5	35	57	30.0	85.71	11.40	31.8 min.
WASHINGTON SQ.	132-135	4	28	29	24.5	87.50	7.25	50.4 min.
WASHINGTON SQ.	136-140	5	35	51	32.5	92.85	10.20	38.4 min.
WASHINGTON SQ.	141-150	10	70	80	67.0	95.71	8.00	50.4 min.
LEE ST.	151-162	12	84	68	66.5	79.16	5.67	58.8 min.
FRANKLIN ST.	163-169	7	49	33	34.5	70.40	4.71	63 min.
FRANKLIN ST.	170-177	8	56	26	22.0	39.28	3.25	51.0 min.
FRANKLIN ST.	178-185	8	56	38	25.5	45.53	4.75	40.2 min.
FRANKLIN ST.	186-196	11	77	55	49.5	64.28	5.00	54.0 min.
FRANKLIN ST.	205-209	5	35	25	17.0	48.87	5.00	40.8 min.
S. LEE ST.	210-220	11	77	23	13.0	16.86	2.09	34.2 min.
HANCOCK ST.	197-204	8	56	21	19.5	34.82	2.62	55.8 min.
# 3 TOTAL ON-ST.		148	1036	799	623.0	60.14	5.40	.7797 46.8 min.
PARKING LOT LAWRENCE ST.	C1-C13 C23-C49	40	280	85	114	40.71	2.13	1.341 1 hr. & 20.5 min.
TOTAL #3		188	1316	884	737.0	56.00	4.70	.8337 50.0 min.
TOTAL		396	2772	1682	1354.5	48.86	4.25	.8050 48.3 min.

STREET	SPACES	NUMBER	SPACE HOURS	NUMBER OF VEHICLES	USAGE HOURS	PERCENT USAGE	TURNOVER	DURATION
WASHINGTON ST.	1-14	14	98	86	54.5	55.61	6.14	37.8 min.
WASHINGTON SQ.	22-28	7	49	44	31.0	63.26	6.29	42.0 min.
WASHINGTON SQ.	29-34	6	42	43	27.0	64.28	7.17	37.8 min.
WASHINGTON ST.	35-37	3	21	26	17.0	80.95	8.66	39.0 min.
HANCOCK ST.	38-40	3	21	24	13.0	61.90	8.00	32.4 min.
HANCOCK ST.	41-43	3	21	15	11.5	54.76	5.00	46.2 min.
WASHINGTON ST.	44-53	10	70	74	57.0	81.42	7.40	46.2 min.
LAWRENCE ST.	54-63	10	70	34	19.0	27.14	3.40	33.6 min.
WASHINGTON	64-69	6	42	33	20.5	48.80	5.50	37.2 min.
#2 TOTAL ON-ST.		62	434	379	250.5	57.71	6.11	.6609 39.7 min.
PARKING LOT HANCOCK ST.	11-30	20	140	1	7.0	05.00	0.05	7 hrs.
PARKING LOT HANCOCK ST.	1-10	10	70	19	49.0	70.00	1.90	2 hrs 34.8 min.
#2 TOTAL OFF-ST.		30	210	20	56.0	26.67	.67	2.80 2 hrs. 48 min.
#2 TOTAL		92	644	399	306.5	47.59	4.34	.7681 46.1 min.
LEE ST.	15-21	7	49	44	31.0	63.26	6.29	42.0 min.
WASHINGTON ST.	265-274	10	70	62	36.5	52.14	6.20	35.4 min.
WASHINGTON ST.	255-264	10	70	58	37.0	52.85	5.80	38.4 min.
LEE SQ.	248-254	7	49	49	38.0	77.55	7.00	46.8 min.
LEE ST.	237-247	11	77	70	62.0	80.51	6.36	53.4 min.
FRANKLIN ST.	230-236	7	49	25	14.5	29.59	3.57	34.8 min.
FRANKLIN ST.	225-229	5	35	17	9.5	27.14	3.40	33.6 min.
S. LEE ST.	221-224	4	28	9	11.5	41.07	2.25	1.277 1 hr. & 16.6 min.
#1 TOTAL ON-ST.		61	427	334	240.0	56.20	5.47	.7185 43.1 min.
#1 PARKING LOT LEE ST.	J1-J55	55	385	65	71.0	18.44	1.18	1.092 1 hr. & 5.5 min.
#1 TOTAL		116	812	399	311.0	38.30	3.44	.7794 46.8 min.

AREA	ON-ST.	% OF TOTAL ON-ST.	% OF TOTAL PUBLIC	PUBLIC	% OF TOTAL OFF-ST PUBLIC	% OF TOTAL PUBLIC	SPACE USE	% OF TOTAL SPACE USE	% OF TOTAL CUST.	PRIVATE		TOTAL	% OF TOTAL SPACES	TOTAL PUBLIC	TOTAL NEED	DEFICIENCY
1	110	22.7		54	35.1		44	13.7		69	14.7	277	19.4	208	266	-58
2	118	24.2		51	33.1		162	50.4		70	15.0	401	28.0	331	193	+138
3	259	53.1		49	31.8		115	35.9		329	70.3	752	52.6	423	870	-447
	487	100		154			321			468		1430		962	1329	367
	34.1% of 1430		50.6% of 962	10.8%			22.4			32.7%						
					475 33.2%											
				962 67.3%												

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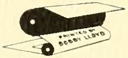
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